Claims

I claim:

1. A method of occluding a body lumen, the method comprising:

providing a device comprising a plugging means adapted for occluding the body lumen, and a delivery means, wherein the delivery means is detachably coupled to the plugging means;

inserting said device into the body lumen with the plugging means entering the lumen first;

advancing said device through said body lumen to a target site;

contacting said plugging means with interior wall of said body lumen;

fixing said plugging means to the interior wall;

detaching the delivery means from said plugging means; and

withdrawing said delivery means from said body lumen, leaving said plugging means inside said body lumen.

2. The method of claim 1, wherein the step of contacting said plugging means with interior wall of said body lumen comprises expanding a segment of said plugging means against the interior wall of said lumen.

3. A method of occluding a body lumen, the method comprising:

providing a device comprising a plugging means adapted for occluding the body lumen and a delivery means, wherein the plugging means has a plurality of openings and the delivery means is detachably coupled to the plugging means;

inserting said device into the body lumen with the plugging means entering the lumen first;

advancing said device through said body lumen to a target site;

injecting a biological bonding agent into the delivery means;

sliding the bonding agent down to the plugging means;

extruding said bonding agent through the openings of said plugging means;

binding said plugging means onto interior wall of said body lumen;

detaching the delivery means from said plugging means; and

withdrawing said delivery means from said body lumen, leaving said plugging means inside said body lumen.

4. The method of claim 1 or 3, wherein the delivery means comprises an access catheter detachably coupled to the plugging means, and a maneuverable core flexibly placed inside the access catheter.

5. The method of claim 2, wherein the plugging means comprises a tapered segment and an expandable segment immediately adjacent to the tapered segment.

6. The method of claim 3, wherein the openings of the plugging means are evenly spaced.

7. The method of claim 3, wherein the openings of the plugging means are round.

8. The method of claim 5, wherein the expandable segment further comprises a plurality of structures for fixing the expandable segment to the interior wall of the body lumen.

9. The method of claim 5, wherein the expandable segment further comprises a plurality of tooth-like structures for fixing the expandable segment to the interior wall of the body lumen.

10. The method of claim 1 or 3 wherein said body lumen is a cystic duct.

11. The method of claim 1 or 3 wherein said body lumen is fallopian tubes.

12. The method of claim 1 or 3, wherein the step of inserting said device is through an incision in an abdominal wall of a human patient.

13. A lumen occlusion device, said device comprising:

means for plugging the lumen;

means for fixing means for plugging to interior wall of the lumen; and

delivery means detachably coupled to the means for plugging for delivering said means for plugging to a selected location in the lumen.

14. The lumen occlusion device of claim 13, wherein the means for plugging comprises a tapered segment, and the means for fixing comprises an expandable segment generally adjacent to the tapered segment.

15. The lumen occlusion device of claim 14, wherein the expandable segment comprises a plurality of structures for attaching said expandable segment to the interior wall of the lumen.

16. The lumen occlusion device of claim 14, wherein the expandable segment comprises a plurality of tooth-like structures for attaching said expandable segment to the interior wall of the lumen.

17. The lumen occlusion device of claim 13, wherein the means for fixing further comprises a segment having a plurality of openings.

18. The lumen occlusion device of claim 17, wherein the openings are evenly spaced.

19. The lumen occlusion device of claim 17 or 18, wherein the openings are round.

20. The lumen occlusion device of the claims 13, wherein the delivery means comprises an access catheter detachably coupled to the plugging means, and a maneuverable catheter core flexibly placed inside the access catheter.